

Today's Date: 11/29/2001

DB Name	<u>Query</u>	Hit Count	Set Name
JPAB,EPAB,DWPI	(phytantriol or phytanetriol)and prevent\$	3	<u>L6</u>
JPAB,EPAB,DWPI	(phytantriol or phytanetriol)and prevem\$. 0 6	<u>L5</u>
JPAB,EPAB,DWPI	(phytantriol or phytanetriol)and protec\$	5	<u>L4</u>
JPAB,EPAB,DWPI	phytantriol or phytanetriol	36	<u>L3</u>
USPT	(\$dihydroxyphytol).ab.	0	<u>L2</u>
USPT	(phytanetriol or phytantriol or \$hexadecanetriol).ab.	5	<u>L1</u>

Search History

WEST

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L4: Entry 1 of 5

File: JPAB

Oct 22, 1986

PUB-NO: JP361236737A

DOCUMENT-IDENTIFIER: JP 61236737 A TITLE: PRODUCTION OF PHYTANETRIOL

PUBN-DATE: October 22, 1986

INVENTOR-INFORMATION:

NAME COUNTRY

MORI, TOSHIKI SHIONO, MANZO FUJITA, YOSHIJI TAMAI, HIRONOBU

ASSIGNEE-INFORMATION:

NAME COUNTRY

KURARAY CO LTD

APPL-NO: JP60077927

APPL-DATE: April 11, 1985

US-CL-CURRENT: <u>568/867</u>

INT-CL (IPC): C07C 31/22; B01J 23/22; B01J 23/28; B01J 27/24; B01J 31/02; B01J

31/20; B01J 31/22; C07C 29/10; C07D 303/14

ABSTRACT:

PURPOSE: To obtain the titled substance useful as a base of skin-<u>protection</u> cosmetic, only by molecular distillation process, without leaving color and unagreeable odor, by reacting isophytol with tert-butyl hydroperoxide in the presence of a specific metal catalyst and opening the ring of the resultant product in the presence of an acidic catalyst.

CONSTITUTION: 1 mol of isophytol is made to react with preferably 1.0∼1.3 mol of tert-butyl hydroperoxide in the presence of a metallic catalyst consisting of a derivative of vanadium or molybdenum at 50∼150°C, preferably 80∼110°C to obtain an epoxy compound. The epoxy compound is subjected to the ring- opening reaction in the presence of an acidic catalyst such as sulfuric acid. After the completion of the reaction, the reaction mixture is neutralized with an aqueous solution of an alkali such as sodium hydroxide and extracted with a solvent such as ether. The extract is washed with water, and the crude objective compound is subjected to molecular distillation to obtain the objective colorless and odorless transparent substance.

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        53845 PROTECT
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    Thermally stable hair care compositions containing polysiloxanes
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ΑN
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    133:139914
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    Thermally stable hair care compositions containing polysiloxanes
IN
     Schick, Laura A.; Sanchez, Claudia P.
PA
    Avon Products, Inc., USA
SO
     PCT Int. Appl., 14 pp.
    CODEN: PIXXD2
DT
     Patent
LA
    English
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
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    WO 2000044337
                     A1 20000803
                                         WO 1999-US29450 19991213
            AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
            DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
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            MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
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            CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 1999-240391
                     Α
                          19990129
RE.CNT 4
(1) Croda Inc; Crodasone W Product Literature 1995, P1
(2) Jones; EP 0540357 A2 1993 CAPLUS
(3) Rath; US 5993792 A 1999 CAPLUS
(4) Simmons; US 5527530 A 1996 CAPLUS
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End of Result Set

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L4: Entry 5 of 5

File: DWPI

Oct 22, 1986

DERWENT-ACC-NO: 1986-321473

DERWENT-WEEK: 198649

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 $\begin{tabular}{ll} TITLE: 3,7,11,15-Tetra:methyl-1,2,3-tri:hydroxy:hexadecane prepn. - by reacting isophytol with tert-butyl hydroperoxide in presence of metal catalyst then is the control of the c$

opening epoxy cpd. ring before distn. of tri:ol

PATENT-ASSIGNEE:

ASSIGNEE CODE KURARAY CO LTD KURS

PRIORITY-DATA: 1985JP-0077927 (April 11, 1985)

PATENT-FAMILY:

PUB-NO PUB-DATE LANGUAGE PAGES MAIN-IPC

JP 61236737 A October 22, 1986 005

JP 92060455 B September 28, 1992 005 C07C031/22

APPLICATION-DATA:

PUB-NO APPL-DATE APPL-NO DESCRIPTOR

JP61236737A April 11, 1985 1985JP-0077927

JP92060455B April 11, 1985 1985JP-0077927

JP92060455B JP61236737 Based on

INT-CL (IPC): B01J 23/22; B01J 23/28; B01J 27/24; B01J 31/02; B01J 31/20; B01J 31/22; C07B 61/00; C07C 29/10; C07C 31/22; C07D 303/14



ABSTRACTED-PUB-NO: JP61236737A

BASIC-ABSTRACT:

3,7,11,15-Tetramethyl- 1,2,3-trihydroxyhexadecane (phytanetriol) is prepd. by reacting isophytol with tert.-butyl hydroperoxide (TBHP) in presence of vanadium or molybdenum deriv. metal catalyst to form epoxy cpd., opening ring of epoxy cpd. in presence of acidic catalyst, and performing mol. distn. of formed triol.

Epoxidation is performed using 0.5-5, pref. 1.0-1.5 moles of TBHP to 1 mole of isophytol. Various metal catalysts of vanadium or molybdenum derivs. are used. Pref. examples are those contg. chains of following formulae, -M=0, -M:0=, -O-M=0, -O-M:0=, where M is V or Mo which may further combine with other atom by one or more ionic bond(s) or covalent bond(s). Vanadium pentoxide, ammonium metavanadate, tert.-butyl (or cyclohexyl or neopentyl)-orthovanadate, vanadyl acetylacetonate, hexacarbonylmolybdenum, and tricarbonyltri acetonitrilemo lybdenum are esp. pref. These catalysts are used in amt. of 0.001-10wt.%, pref. 0.01-1.0wt.% of isophytol. Reaction temp. is usually 50-150 deg.C, pref. 80-110 deg.C. Acidic catalysts, used in ring-opening reaction of epoxy cpd. are e.g., sulphuric acid, hydrochloric acid, phosphoric acid and perchloric acid, which are used in amt. of 1-100wt.%, pref. 5-20wt.% at near room temp. pref. in presence of solvent e.g., tetrahydrofuran or isopropyl alcohol.

USE/ADVANTAGE - Colourless clear phytanetriol having no unpleasant odour is

easily obtd. in high yields. (Phytanetriol is known as useful cosmetic component with protective action for skin or hair).

CHOSEN-DRAWING: Dwg.0/0

TITLE -TERMS: TETRA METHYL TRI HYDROXY HEXADECANE PREPARATION REACT ISOPHYTOL TERT BUTYL HYDROPEROXIDE PRESENCE METAL CATALYST OPEN EPOXY COMPOUND RING DISTIL TRI OL

DERWENT-CLASS: D21 E17

CPI-CODES: D08-B03; D09-E; E10-E04B; N03-C; N03-D; N05-B; N05-C;

CHEMICAL-CODES:

Chemical Indexing M3 *01*
Fragmentation Code
H4 H403 H483 H8 M280 M316 M321 M333 M343 M383
M391 M416 M620 M720 M903 N113 N114 N205 N213 N242
N305 N309 N342 N362 N411 N441 N513 Q252 Q254

Chemical Indexing M3 *02*
Fragmentation Code
A423 A542 A910 A940 A950 A960 A980 C106 C108 C500
C550 C730 M411 M730 M903 Q421

Chemical Indexing M3 *03*
Fragmentation Code
C101 C108 C316 C540 C730 C800 C801 C802 C804 C805
M411 M730 M903 M910 Q421

Chemical Indexing M3 *04*
Fragmentation Code
B115 B701 B713 B720 B815 B831 C017 C100 C101 C108
C300 C730 C800 C801 C802 C804 C805 C806 C807 M411
M730 M903 M910 Q421

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0389S; 1692S; 1704S; 1711S; 1714S; 1926S

4

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1986-138980

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